

Jacob Butfiloski

(863)-262-9466 | jacobbutfiloski@gmail.com | [linkedin.com/in/jacobbutfiloski](https://www.linkedin.com/in/jacobbutfiloski) | github.com/jakebutf | jakebutf.software

EDUCATION

University of South Florida

Tampa, FL

Bachelor of Science in Information Science, Concentration in Web Development Technologies Aug. 2023 – May 2025

Polk State College

Lakeland, FL

Associate's in Liberal Arts

Aug. 2020 – May 2023

EXPERIENCE

Software Engineer

May 2025 – Present

Metrc

Remote

- Led development of a WYSIWYG label designer for RetailID, building a Photoshop-style canvas renderer and editor in React and TypeScript for creating and customizing compliance labels
- Architected an HTML5 canvas rendering engine supporting layered elements, text, barcodes, and images with real-time visual editing, drag-and-drop placement, and print-accurate layout
- Designed a modular plugin-based output system rendering labels to ZPL thermal printers (203 and 300 DPI) and PDF, with an extensible architecture enabling new print formats to be added with minimal effort

Frontend Web Developer

December 2022 – May 2025

YMCA of West Central Florida

Lakeland, FL

- Sole frontend engineer partnering with marketing and program directors to maintain accurate, up-to-date site content, increasing user engagement and streamlining digital user registration
- Engineered an automated web-scraping pipeline on Amazon AWS EC2 to aggregate Indeed job listings and publish them to WordPress
- Co-led full redesign and migration plan from a proprietary Ready CMS website to WordPress, developing custom Angular components, CSS layouts, and JavaScript modules to modernize UI/UX

Programming Instructor

Sep. 2024 – May 2025

CodeFu Tampa

Tampa, FL

- Designed and delivered hands-on programming classes in Python and Scratch across 5+ classes, building modular curriculum, coding challenges, and interactive demos to visualize code behavior

PROJECTS

Nintendo Title Reverse Engineering | *ARM, C, C#, C++, TCP, Ghidra*

- Utilized Ghidra to reverse engineer and document function symbols extracted from Nintendo console executables
- Developed custom injectable code for Nintendo Switch executable files, allowing for modified code execution on real hardware
- Built and open-sourced tools for live console memory editing and debugging through TCP, supporting real-time analysis and modification

OpenGL C Renderer & Voxel Engine | *C, OpenGL, GLSL*

- Built a real-time 3D graphics renderer and voxel engine written entirely in C on top of OpenGL
- Implemented the full rendering pipeline by hand, including shader management, camera and transform math, and chunked voxel mesh generation

Time-Based NPC Pathing | *Unity, Godot, C#*

- Engineered a time-synchronized NPC pathing system where scheduled routes remain correct even as game time is reversed, accelerated, or slowed
- Modeled NPC position as a pure function of game time using piecewise linear interpolation over normalized path segments, eliminating frame-accumulation drift and allowing NPCs to load into scenes mid-route at the exact position for any timestamp

Game Jam Entries | *Unity, C#*

- Shipped playable Unity games under 72-hour jam deadlines, including *Dirge*, a 3D puzzle game (Ludum Dare 58), and *Jeff Gold Weight*, a 2D platformer (Ludum Dare 40)

TECHNICAL SKILLS

Languages: C/C++, C#, Java, Python, JavaScript, TypeScript, SQL (Postgres), HTML/CSS

Engines & Frameworks: Unity, Unreal Engine, Godot, OpenGL, React, Node.js, ASP.NET, ElectronJS

Developer Tools: Git, Docker, Linux, Ghidra, TCP, MongoDB